

## Introduction

- In Peru, the men who have sex with men (MSM) is an important population to focus on, with an HIV prevalence of 13.9%. There is a lack of information characterizing gay MSM couples and addressing couple-specific HIV prevention.
- Though HIV prevention in Peru primarily focuses on the individual level, status disclosure is an important component particularly between established couples. Open communication regarding HIV serostatus can positively influence safer sex decision making between couples.
- This study focused on gay couples in Lima to describe the major characteristics of their relationships, such as duration and level of commitment, and analyze the relationship between HIV serodisclosure and HIV status based on these different characteristics.

## Methods

- This study was conducted at a gay community center in Lima, Peru with recruitment via posters, Facebook and social means. Each participant completed a computer-based survey and provided a blood sample for HIV-testing. Though couples were encouraged to participate together, this was not a requirement.
- Self-reported HIV-status and HIV-testing results were compared for each participant.
- Psychosocial constructs measured and analyzed at the individual level (eg. Experiences of risky sexual situations), inter-personal level (eg. General social support) and community level.

## Results

- 93 gay couples (n=186) with a median relationship duration of 1.9 years were surveyed.
  - 52% HIV-concordant negative
  - 29% HIV discordant
  - 19% HIV-concordant positive

Table 1: Relationship Characteristics by Relationship Status

Characteristics	With partner	Without partner	p-value
Age (years)	27.8	27.8	1.00
Employment (% Employed)	46%	31%	<b>0.04</b>
Involvement w/ Political Gay/Trans Activism (1="Not Involved" to 3="Very Involved")	1.28	1.24	0.60
Open w/ Family (1=Open w/ Everyone to 5=Closed Off w/ Everyone)	2.42	2.06	<b>0.04</b>
Open w/ General Population(1=Open w/ Everyone to 5=Closed Off w/ Everyone)	2.76	2.68	0.55
Previous HIV Testing (% previously tested)	10.4%	12%	0.73
Enrolled in HIV+ Health Program (% Enrolled in health program)	49%	75%	0.33
Antiretroviral Therapy (% taking ART)	7.7%	0%	0.70
Importance of Keeping HIV Secret (1="Not Important" to 5="Very Important")	0.58	1	0.10
Alcohol Use (1=Never to 6=Every Day)	2.53	2.6	0.70

Table 2: Psychosocial Constructs and their Cronbach’s Alpha Values

Scales	Cronbach's Alpha	Sample Item
General Social Support	0.81	How often do you feel like you lack companionship?
Miller Social Intimacy Scale	0.83	When you have free time, how often do you choose to spend it alone with your partner?
Honesty	0.75	How honest are you with your partner about risky issues, such as past sexual risks?
Power in Gay Male Relationships	0.88	I make the majority of the important decisions that affect us.
Anxiety and Hostility	0.89	In the past week, how often have you been bothered by nerves or internal feelings of instability?
Experiences of Difficult/Risky Sexual Situations	0.79	In the past 12 months, how frequently have you been in a sexual situation with someone who didn't want to use a condom?
Social Provision Scale	0.93	I can depend on my partner to help me practice safe sex if I need help.
Social Provision Scale for HIV negative participants	0.92	I cannot rely on my partner as a guide for safe sex.
Social Provision Scale for HIV positive participants	0.96	I cannot rely on my partner as a guide for safe sex.
Depression	0.88	I am bothered by things that normally don't bother me.

Table 3: Psychosocial Construct Means by Relationship Status and Duration

Scales	Mean w/ Partner	Mean w/o Partner	p-value
General Social Support	1.8 (SD=0.8)	2.0 (SD=0.7)	<b>0.05</b>
Scales (Partner-Only)	Mean if partner >=1 yr	Mean if partner <1 yr	p-value
Miller Social Intimacy (1=“Not Often” to 10=“Often”)	9.5 (SD=1.1)	9.2 (SD=1.5)	<b>0.02</b>
Honesty (1=“Completely Honest” to 5=“Completely Dishonest”)	3.9 (SD=1.3)	3.1 (SD=1.6)	<b>0.003</b>
Power in Gay Male Relationships (1=“Strongly Disagree” to 5=“Strongly Agree”)	2.2 (SD=1.4)	2.1 (SD=1.2)	0.90
Anxiety and Hostility (1=“Never” to 5=“Always”)	1.9 (SD=1.1)	1.8 (SD=1.0)	0.90
Experiences of Risky Sexual Situations (1=“Never” to 4=“Many Times”)	2.3 (SD=1.4)	1.9 (SD=1.1)	<b>0.01</b>
Social Provision Scale (1=“Strongly Disagree” to 4=“Strongly Agree”)	3.5 (SD=0.7)	3.4 (SD=0.6)	0.10
Social Provision Scale (HIV-negative) (1=“Strongly Disagree” to 4=“Strongly Agree”)	3.5 (SD=0.6)	3.4 (SD=0.7)	0.30
Social Provision Scale (HIV-positive) (1=“Strongly Disagree” to 4=“Strongly Agree”)	3.4 (SD=0.8)	3.1 (SD=0.6)	0.70
Depression (1=“Rarely” to 4=“Always”)	1.6 (SD=0.8)	1.6 (SD=0.6)	0.70

## Conclusions and Future Directions

- *Conclusions:* This study is currently in the phase of developing and implementing an HIV-prevention intervention based on the results analyzed.
- *Future Directions:* The intervention will focus primarily on individuals’ relationship status and incorporate community(eg. Local activists MSM leaders) and expert input.
  - Main Components: **small-group sessions** for participants to actively promote the discussion of relationships, HIV-prevention negotiation and information on new and existing HIV-prevention strategies and **opt-in couple’s voluntary counseling and testing (CVCT)** to understand relationship dynamics and create communal coping to enhance the use of different prevention strategies (eg. PEP, condoms).
  - Participation in the intervention components will be assessed along with the collection of data from pre- and post- assessments at 0 and 12 months and biological assessment.
  - Other secondary outcomes of interest include the acceptability of the intervention, knowledge and commitment to prevention strategies and HIV incidence.

## Acknowledgements

We would like to thank the fieldwork team and all of the participants who took part in this study. Also, I would like to thank Dr. Kelika Konda, the UCLA Center for World Health and David Geffen School of Medicine for their support.